CLAIMS:

1.      A method for determining a dynamic range of a digital medical image for a medical imaging system, the digital medical image containing a clinical region, comprising:

        determining whether the digital medical image includes a non-clinical region; and

        calculating a dynamic range for a clinical region.

2.      The method of claim 1, further comprising:

        dividing the digital medical image into bands of predetermined width, said determining step identifying the non-clinical region in each band.

3.      The method of claim 1, wherein the digital medical image is divided into horizontal and vertical bands during the determining step.

4.      The method of claim 1, further comprising:

        differentiating said digital medical image, said determining step calculating a position of the non-clinical region based on a result of said differentiation.

5.      The method of claim 1, further comprising:

        calculating at least one threshold based on a dynamic range of the digital medical image, said at least one threshold being used to identify at least one of maximum and minimum values for the non-clinical region.

6.      The method of claim 1, wherein said identifying step discriminates at least one of histogram maximum and

minimum values for a non-clinical region based on at least one predetermined threshold.

7. The method of claim 1, further comprising:

when a non-clinical region is determined to exist, masking the non-clinical region from the digital medical image before calculating said dynamic range.

8. The method of claim 1, further comprising masking non-clinical regions based on at least one of gray scale maximum and minimum values for the non-clinical region.

9. The method of claim 7, further comprising:

generating a histogram of the digital medical image, said masking step masking gray scale levels from the histogram that exceed predetermined upper and lower thresholds.

10. The method of claim 1, wherein said determining step determines that the digital medical image does not include a non-clinical region and said calculating step calculates a dynamic range of the entire digital medical image as the clinical region.

11. A medical diagnostic imaging system for controlling a dynamic range of a digital medical image to be displayed, the digital medical image including a clinical region and a non-clinical region, comprising:

a segmentation module identifying a non-clinical region of a digital medical image; and

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a dynamic range module determining a dynamic range of a clinical region of the digital medical image once the non-clinical region is segmented.

12. The system of claim 11, further comprising:

5    a digital detector obtaining a digital medical image having clinical and non-clinical regions.

13. The system of claim 11, wherein the segmentation module identifies a raw radiation region in the non-clinical region.

10   14. The system of claim 11, wherein the segmentation module identifies a collimated region in the non-clinical region.

15. The system of claim 11, wherein the segmentation module identifies non-clinical regions based on variations in gray scale levels of the digital medical

15   image.

16. The system of claim 11, wherein the segmentation module differentiates at least a portion of the digital medical image to identify the non-clinical

20   region.

17. The system of claim 11, wherein the segmentation module discriminates the non-clinical region based on at least one gray scale threshold value.

18. The system of claim 11, further comprising a

25   processor calculating at least one threshold based on a

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dynamic range of the digital medical image, said segmentation module discriminating the non-clinical region based on said threshold.

19. The system of claim 11, wherein said dynamic range module including a processor masking over a non-clinical region when determining the dynamic range of the clinical region.

20. The system of claim 11, further comprising:

a processor calculating at least one of a maximum and minimum gray scale level for the digital medical image in order to identify the non-clinical region.

21. The system of claim 11, further comprising:

a processor calculating at lest one of maximum and minimum gray scale levels for the clinical region in order to determine the dynamic range of the clinical region.

22. The system of claim 11, further comprising:

a processor generating a histogram of at least a portion of the digital medical image to identify gray scale levels associated with non-clinical regions.

23. The system of claim 11, wherein the segmentation module masks a non-clinical region identified in the digital medical image.

24. The system of claim 11, wherein the segmentation module determines that the digital medical image does not include a non-clinical region, said

dynamic range module determining a dynamic range of the digital medical image as the clinical region.